

TORONTO TRANSIT COMMISSION REPORT NO.

MEETING DATE: February 18, 2009

SUBJECT: TORONTO GREEN DEVELOPMENT STANDARD
STATUS REPORT

INFORMATION ITEM

RECOMMENDATION

It is recommended that the Commission receive this report for information purposes on the status of the implementation of the Toronto Green Development Standard.

FUNDING

There are no dedicated funds for implementation of the Toronto Green Development Standard. Should additional funds be required for pilot project implementation, they will be requested on a project by project basis.

BACKGROUND

The City of Toronto approved the Climate Change, Clean Air and Sustainable Energy Action Plan in 2007 which aims to reduce the release of greenhouse gases and improve local air quality. All Agencies, Boards and Commissions were requested to participate.

In December of 2007, the Commission adopted the recommendations of the TTC Environmental Plan – Initiatives and Implementation which directs staff to establish and report on pilot projects required to implement the Toronto Green Development Standard.

DISCUSSION

The Toronto Green Development Standard (TGDS) is being adopted, where feasible, for new TTC construction. Where the core requirements of the TGDS exceed the TTC design standard new standards will be developed where feasible. New standards will be implemented and assessed on the next large buildings or facilities scheduled in the Capital Program.

Significant progress has been made to date:

- Green and/or cool roofs are being installed on all new roofing projects.
- The contracts for the station designs for TYSSE and the LRT Carhouse require the

designs to meet the TGDS.

- As part of the Station Modernization Program at Pape Station, solar panels are being installed as well as enhanced bicycle parking.
- At Warden Station Phase 1 parking replacement, additional trees are being planted to shade the hard surfaces.
- TTC design standards are being upgraded to include secure bicycle storage and full service bicycle stations.

Where new TTC standards are required to meet the TGDS and new technologies are introduced, pilot projects will be implemented which will allow for the identification of best practices, assessment of the impact on levels of service, and training to be in place prior to full scale adoption.

The key areas of the TGDS identified as requiring pilot projects are:

1) Urban heat island – surface parking lots

To reduce the urban heat island, light coloured permeable concrete will be used in parking spaces at commuter parking lots. The permeable concrete will assist in storm water retention on-site and will require a subsurface drainage system.

The pilot project being implemented is the Cordova commuter parking lot expansion (Contract W4-19) at Islington Station. Design is to be undertaken by TTC in 2009.

2) Minimum Energy Performance – exceed the Model National Energy Code for Buildings (MNECB) by 25%

Initiatives required to achieve and/or exceed the energy conservation objective of 25% better than the MNECB standard include:

For subway stations the following technologies will be considered for implementation where feasible;

- Heat Pumps
- Heat Recovery Units
- Machine Room-Less Elevators to reduce motor horsepower rating and reduce electrical energy consumption.

Opportunities to apply or test these technologies are being investigated on the Spadina Subway Extension stations.

For bus garages, shops and offices, the following technologies will be considered for implementation where feasible:

- Heat Pumps
- Heat Recovery Units
- Humidifiers

- 3) Storm water retention and storm water runoff – retain water on site and remove suspended solids.

To retain storm water on-site and remove suspended solids from storm water runoff, a combination of permeable concrete, stormceptor, site ditching/swales and subsurface retention tanks with infiltration will be utilized.

A pilot project is being implemented at the Cordova commuter parking lot expansion (Contract W4-19) at Islington Station.

- 4) Storage and collection of recyclable materials

The TTC launched in 2008 its first organic waste collection pilot project at the Inglis Building cafeteria - Hillcrest complex – 1138 Bathurst Street.

- 5) Construction Waste & Recycling

The Toronto Transit Commission's Engineering Department is currently editing its Master Specification to achieve the minimum standard adopted by the TGDS to recycle and/or salvage at least 50% of non hazardous construction and demolition debris. Similarly, the specifications are being revised to ensure that at least 7.5% of a project's materials (based on value) are comprised of recycled content.

A pilot project, at Dufferin Station, has been identified for 2009.

JUSTIFICATION

Implementing pilot projects will help the affected TTC departments determine how best to meet the requirements of the Toronto Green Development Standard.

January 26, 2009
80-8-21
1131123